

# Norton Sound Service Unit

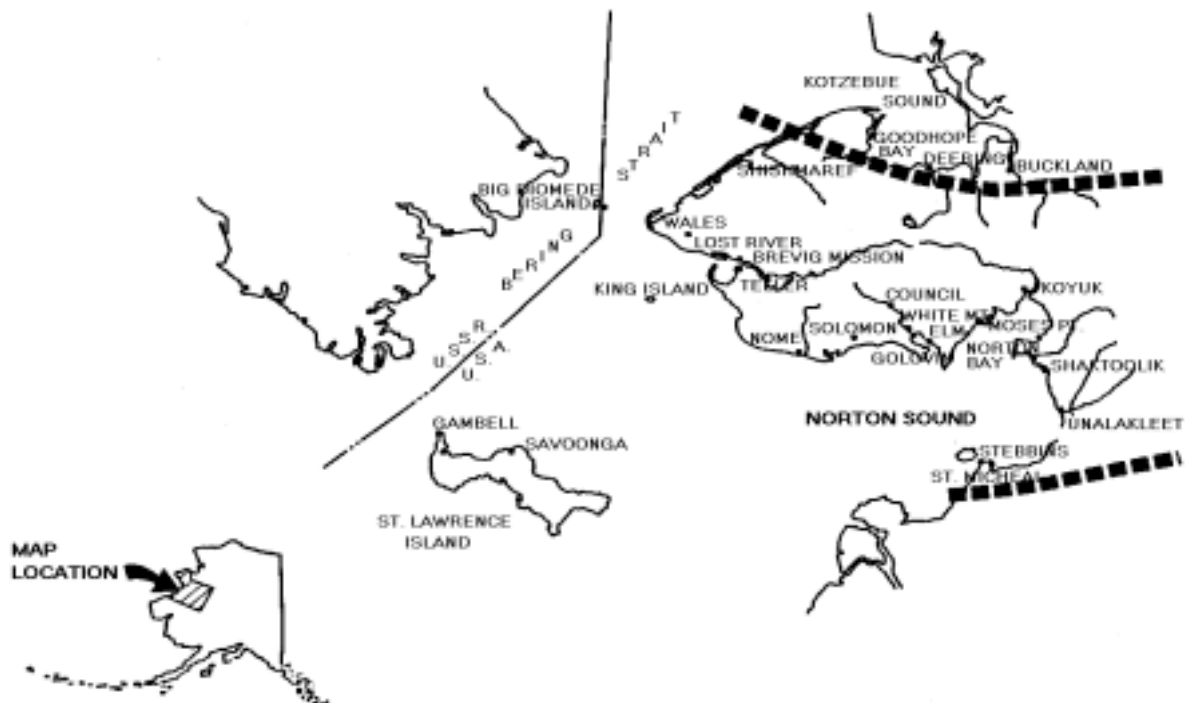
## OVERVIEW

### Alaska Native 1998 User Population.

<b>NORTON SOUND SERVICE UNIT</b>	<b>7,404</b>
Norton Sound Health Corporation *	7,404

*Users are defined as beneficiaries who used a facility that reports through the IHS data system at least once between 10/1/95 and 9/30/98. \* Reflects adjustments made to tribes with data submission problems.*

**Environmental Factors.** The Norton Sound Service Unit covers about 23,088 square miles in Northwestern Alaska on the Seward Peninsula. The area extends into the Bering Sea toward Siberia and includes Little Diomedede Island, Gambell and Savoonga on St. Lawrence Island, 13 communities along the Bering Straits-Norton Sound coast and the regional center of Nome. Nome is on the south shore of the peninsula facing Norton Sound, 500 miles northwest of Anchorage.



Most of the Natives of the region are from three distinct language and cultural groups of Eskimos: Inupiaq, Central Yup'ik, St. Lawrence Yup'ik and Cup'ik. Nome contains about 30% of the Native population of the region. The remaining 17 communities vary in size from six

# Norton Sound Service Unit

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summer residents in Council to 698 in Unalakleet. Most of the Native people living in the region's villages still rely heavily on subsistence harvests of land and sea for their existence.

A cool marine climate prevails in the summer, and the winters are cold. The mean January temperature is 4 degrees, with routine winter lows of -20 degrees to -40 degrees. Combined with the persistent year-round breeze, which averages 11 knots, the wind chill factor in the winter can reach -50 to -70 degrees. In July, the temperatures range from 50 to 70 degrees and are accompanied by seasonal rains. Spring and fall are short seasons of a month's duration. The coastal villages and Nome have shore-bound pack ice for about eight months of the year.

**Utilities.** Most of the villages and Nome have electricity in residential homes and in public buildings. Electricity is not available in the unincorporated villages of Solomon and Council, which each have less than 30 year-round residents.

Nome has a water and sewer system available to all the city's residents, excluding a few of the periphery settlement areas. Nevertheless, several of the homes in Nome still use "honey buckets" for waste disposal and must have water delivered by truck or haul it themselves. Most of the villages have no central water or sewer systems. There has been some improvement in recent years, but there is still much progress to be made. In lieu of a water and sewer system, almost all of the villages have a shower facility and a laundromat (often combined as a "Washateria"). A city building houses the washateria and usually the local government offices.

**Communications.** There are three local telephone companies serving Norton Sound villages, and equal access to long distance carriers has recently been established (allowing the choice of carrier). Most residents in Nome and the surrounding villages have telephone service in their homes. The village health aides are currently dialing into the Meditech system at the Norton Sound Hospital by modem to access and augment medical records. An application for Universal Services Funds (USF) has been made by Norton Sound in partnership with Kawerick Corporation to support a frame relay dedicated circuit between the village clinics and the Norton Sound Hospital and to support T1 service to Anchorage.

**Transportation.** Nome is accessible by sea transportation during the summer months and by air. Daily jet service connects Nome and Anchorage. Small commuter "bush" planes provide transportation between Nome and the region's villages. During the summer months, Little Diomedé is accessible only by helicopter. Nome has about fifteen miles of paved roads. Three unpaved gravel roads extend from Nome about 70 miles each in three different directions into the wilderness. These roads are not maintained in the winter. In the summer, it is possible to drive north to the village of Teller and south to Council. During the winter, residents of the area use snowmachines or dogsleds to traverse the frozen ground, rivers, lakes and even the Bering Sea.

# Norton Sound Service Unit

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Boats supplement airplane transportation during the summer. Barge and freight companies make deliveries when the Bering Sea is ice-free. Because Nome has no harbor, the companies transport freight to Nome from ships anchored 1.5 miles offshore. Some barge transportation is available to the surrounding villages.

**Housing.** Government quarters in Nome consist of two single family houses and a three-bedroom trailer. Housing in Nome is often difficult to obtain. Two hotels offer reasonable accommodations.

**Education.** Educational facilities in Nome include an elementary school, junior high, high school and the Northwest Campus of the University of Alaska-Fairbanks (NWC). Within the last few years, every village of the region has constructed and opened schools offering grades Kindergarten (K) through 12. This reduced the number of youth required to depart the region to attend boarding schools such as Mt. Edgecumbe in Sitka. The City of Nome and many of the villages also have Head Start and preschool programs.

Though its size is very small and its offerings are fairly limited, NWC receives high utilization by the residents of the entire region. The school offers standard two-year academic courses leading to certificates or associates degrees, as well as classes applicable to four-year degrees from the University of Alaska-Fairbanks. NWC also offers many local interest courses not available through the Community Schools (a program of the Nome Public Schools). An innovative "distance learning" approach uses audio conferencing capabilities and learning resource centers in many of the villages to provide regular course work in a modified classroom/instructor setting. Also, NWC instructors regularly travel to the villages to teach on-site courses.

Nome Census Area	
Percent high school graduate or higher	65.0%
Percent bachelor's degree or higher	13.8%
Source: State of Alaska, Alaska Department of Labor, Research & Analysis, Alaska Economic Trends, July 1998, p4.	

**Natural Resources.** Residents in the Norton Sound Service Unit rely on natural resources from the land and sea. Mined resources on the Seward Peninsula include gold, tin and oil. Game, fish, sea mammals (walrus, seal and whale), and gathered berries comprise the natural subsistence harvest.

Nome is the commerce and government center for Northwest Alaska. The center of Alaska's reindeer industry is in the Nome area. State and Federal government, the gold mining industry, transportation, merchandising and tourism are the major contributors to employment. Nome is the end of the trail of the famed Iditarod Sled Dog Race held in March of each year. The race starts in Anchorage and ends in Nome more than 1,049 miles later.

# Norton Sound Service Unit

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**Economic Conditions.** The following information includes Native and Non-Natives for the Nome census area:

*(based on 1997 population estimates)*

Unemployment Rate	11.7%
Percent of all 16+ in labor force	57.6%
Percent of children under 5 years old	10.9%
Percent of school age population (5 to 17)	28.9%
Percent adult workforce population (18 to 64)	54.5%
Percent seniors (65 years & over)	5.7%
Percent Native American	80.6%
Percent White	18.1%
Wage and salary employment	\$26,967

Source: State of Alaska, Alaska Department of Labor, Research & Analysis, Alaska Economic Trends, July 1998, p4.

**Tribes.** Listed below are the Federally recognized tribes.

## **Norton Sound Health Corporation Region**

Native Village of Brevig Mission - General Delivery, Brevig Mission, AK 99785  
Chinik Eskimo Community (aka Golovin) - General Delivery, Golovin, AK 99762  
Native Village of Council - P.O. Box 2050, Nome, AK 99762  
Native Village of Diomed IRA (aka Inalik) - P.O. Box 7099, Diomed, AK 99762  
Native Village of Elim IRA - P.O. Box 39010, Elim, AK 99739  
Native Village of Gambell IRA - P.O. Box 99, Gambell, AK 99762  
King Island Native Community IRA - P.O. Box 992, Nome, AK 99762  
Native Village of Koyuk IRA - P.O. Box 30, Koyuk, AK 99753  
Native Village of Mary's Igloo - P.O. Box 572, Teller, AK 99778  
Nome Eskimo Community IRA - P.O. Box 1090, Nome, AK 99762  
Native Village of Savoonga IRA - P.O. Box 129, Savoonga, AK 99769  
Native Village of Saint Michael IRA - General Delivery, St. Michael, AK 99659  
Native Village of Shaktoolik IRA - P.O. Box 100, Shaktoolik, AK 99771  
Native Village of Shishmaref IRA - P.O. Box 72110, Shishmaref, AK 99772  
Village of Solomon - P.O. Box 243, Nome, AK 99762  
Stebbins Community Association IRA - P.O. Box 2, Stebbins, AK 99671  
Native Village of Teller - P.O. Box 590, Teller, AK 99778  
Native Village of Unalakleet IRA - P.O. Box 70, Unalakleet, AK 99684  
Native Village of Wales IRA - P.O. Box 549, Wales, AK 99783  
Native Village of White Mountain IRA - P.O. Box 84082, White Mountain, AK 99784

## **DESCRIPTION OF HEALTH-CARE DELIVERY SYSTEM**

The Norton Sound Health Corporation (NSHC) serves the people of the area with direct preventive health services. The Corporation organized in 1970 through funding from the

# Norton Sound Service Unit

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Office of Economic Opportunity. It operated within the Kotzebue Service Unit and worked with the Indian Health Service, State Public Health Service and the Methodist owned and operated hospital in Nome.

During the summer of 1974, the NSHC separated from the Kotzebue Service Unit. The division came as a result of the Alaska Native Claims Settlement Act which cut the Kotzebue Service Unit into two regional corporations. This was a natural geographical split because Nome was a population center in the south and Kotzebue was a population center in the north.

A Board of Directors governs the NSHC. The 23 member Board includes representatives from each of the communities in the area, from local agencies, from King Island Village (a vacant island village whose families and descendants now reside in Nome) and the City of Nome. The goal of the NSHC is to coordinate health services delivery throughout the region and to serve as a model for rural health care delivery.

The Norton Sound Health Corporation owns and operates the Norton Sound Regional Hospital in Nome. Adjoining the newer hospital is the old Maynard McDougall Memorial Hospital. Built in 1948, the old building now houses support services, administration and PHS dental facilities. The NSHC added on to this old hospital with a new inpatient and outpatient facility in April 1978. Now, all existing structures are in need of replacement.

## **Name & Location of Hospitals/Health Centers/Clinics.**

Norton Sound Regional Hospital, P.O. Box 966, Nome, Alaska 99762

A staff of about 511 full and part-time employees of the NSHC are responsible for direct care, preventive care, and health promotion within the region. The NSHC divides services into two Divisions: a Hospital Services Division and a Regional Health Services Division.

The Hospital Services Division maintains 19 acute care beds, 15 long-term care beds, an outpatient clinic and an emergency room. A full complement of ancillary and support services are available, including radiology and x-ray, pharmacy, laboratory, respiratory and physical therapy, dietary, medical records, central sterile supply, plant operations and domestic services. Alaska Natives receive inpatient, outpatient and dental services through a compact of Health Care Organizations.

The Regional Health Services Division provides services in many areas. These include optometry, dental care, village health, environmental health, emergency medicine, public health nursing, audiology, residential care, behavior health services outpatient treatment, and family services. Norton Sound contracts with Maniilaq for inpatient regional treatment center for substance abusers.

# Norton Sound Service Unit

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The family services are homemaker services, maternal and child health care, infant development detection, the Women, Infant and Children's program, Infant Learning Program, Fetal Alcohol Syndrome, and the Developmental Disabilities Services.

Trained community health aides deliver medical care in the villages. The following villages have clinics and community health aides:

Brevig Mission	Koyuk	Shaktoolik	Unalakleet
Elim	Little Diomede	Shishmaref	Wales
Gambell	St. Michael	Stebbins	White Mountain
Golovin	Savoonga	Teller	

## **NON-TRIBAL HEALTH AGENCIES AND FACILITIES AND TYPES OF SERVICES PROVIDED TO SERVICE POPULATION**

In addition to the Norton Sound Health Corporation, several other health and social agencies operate in the service area. Norton Sound contracts with the State of Alaska for the public health nurses. Three public health nurses, one registered nurse and one community health aide are responsible for health promotion and maintenance and disease prevention. There are two privately employed dentists. An Anchorage-based chiropractor makes monthly visits to Nome, and an optometrist with staff visits the rural communities every three to four months.

## **HEALTH SERVICES AND FACILITIES PLANNING ISSUES**

A new Norton Sound hospital has been approved by the IHS and is on the IHS Health Facilities Construction Priority List. Norton Sound Health Corporation is actively seeking funding to implement a telecommunication project that would link all of the village clinics with NSR and the NSH with the Alaska Native Medical Center.

Sanitation is a major problem for most villages. Only three villages, Unalakleet, Elim and Shaktoolik have complete water and sewer systems. For the homes without piped water and sewer, a typical bathroom is a honeybucket and a small washing basin with standing water. In some of the older houses, the bathroom is behind a curtain. The villages need water, sewer and waste disposal systems. The poor sanitation conditions is the cause for periodic outbreaks of infectious diseases.

# Norton Sound Service Unit

## HEALTH STATUS OF ALASKA NATIVES LIVING IN THE NORTON SOUND SERVICE UNIT

### Mortality.

The table below shows the Alaska Native deaths by age and the leading causes of death for the Norton Sound Area.

**Norton Sound Service Unit**  
Alaska Native Deaths by Age and  
Three-Year Average Crude Death Rates per 100,000 Population

	1996	1997	1998	3 -Year Rate
Total Deaths	55	55	63	799.6
Age at Death:				
under 5	2	5	3	
5-9	0	1	2	
10-14	1	1	0	
15-24	6	0	7	
25-44	11	13	16	
45-64	15	8	13	
64+	20	27	22	
Age Unknown	0	0	0	

Leading Causes of Death	1994-1996 /4		1995-1997 /4		1996-1998 /4	
	AI/AN	U.S.	AI/AN	U.S.	AI/AN	U.S.
1) Malignant Neoplasms /1	110.6	204.9	131.7	203.4	166.4	200.3
Lung Cancer	52.9	57.5	51.7	57.3	60.1	59.1
2) Unintentional Injuries (Accidents) /2	144.2	35.5	112.9	35.8	138.7	36.2
Motor Vehicles	38.5	16.5	37.6	16.5	41.6	16.1
Water Transport/Drowning	19.2	1.7	18.8	1.6	46.2	1.6
3) Heart Disease	139.4	280.7	122.3	276.4	101.7	268.2
4) Suicide	72.1	11.9	51.7	11.6	64.7	11.3
5) Alcohol Related /3	38.5	7.7	42.3	7.5	55.5	7.4
6) Chronic Obst. Pul. Diseases	48.1	39.2	47	40.0	55.5	41.7
7) Cerebrovascular	43.3	60.1	47	60.3	50.8	58.6
8) Homicide	4.8	7.9	9.4	7.4	23.1	6.8

1/ Lung Cancer is included in Malignant Neoplasms.

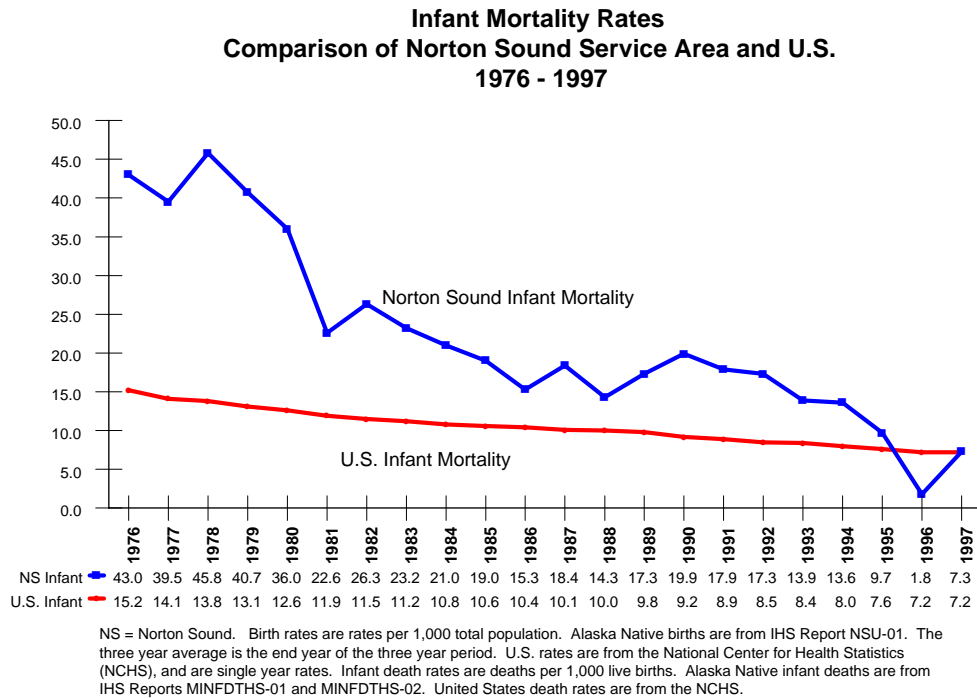
2/ Does not include injuries purposefully inflicted or injuries undetermined whether purposefully or accidentally inflicted. Motor Vehicle and Water Transport/Drowning are also counted in the total Accidents; it does not include alcohol related deaths.

3/ Alcohol Related deaths include alcoholic psychoses, alcohol dependence syndrome, alcohol abuse, alcoholic liver disease and cirrhosis, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, excessive blood level of alcohol, and accidental poisoning by alcoholic beverages and ethyl alcohol.

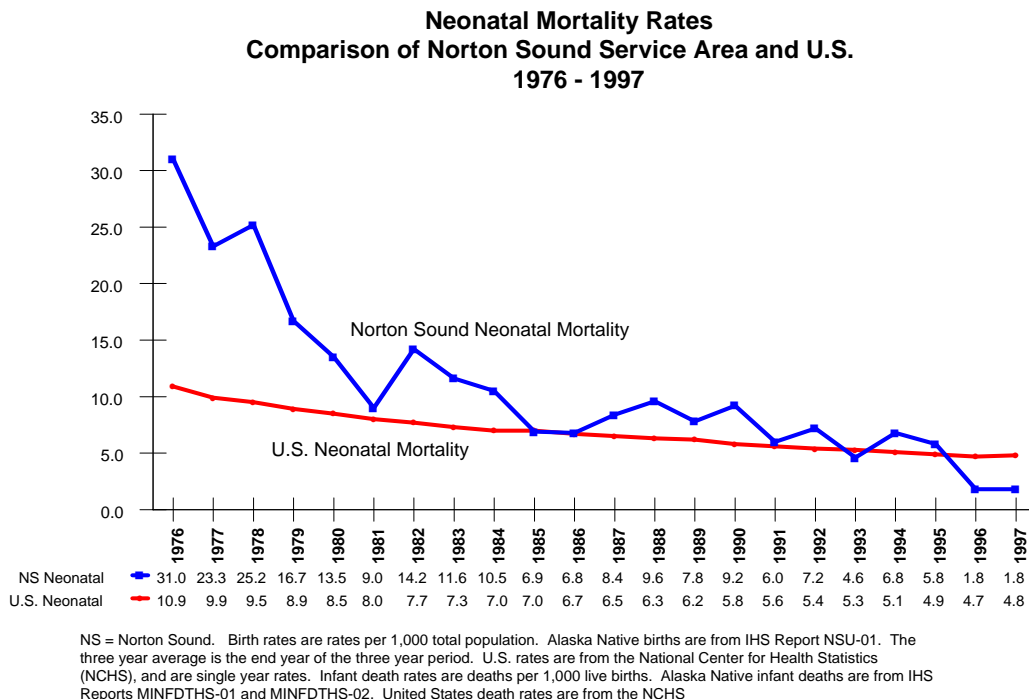
4/ Causes not included when deaths average less than one per year in 1995-97. Single year rates for U.S. Alaska Area Native Health Service, Division of Planning, Evaluation & Health Statistics.

# Norton Sound Service Unit

**Infant Mortality.** The following graph shows the Norton Sound and U.S. infant death rates.



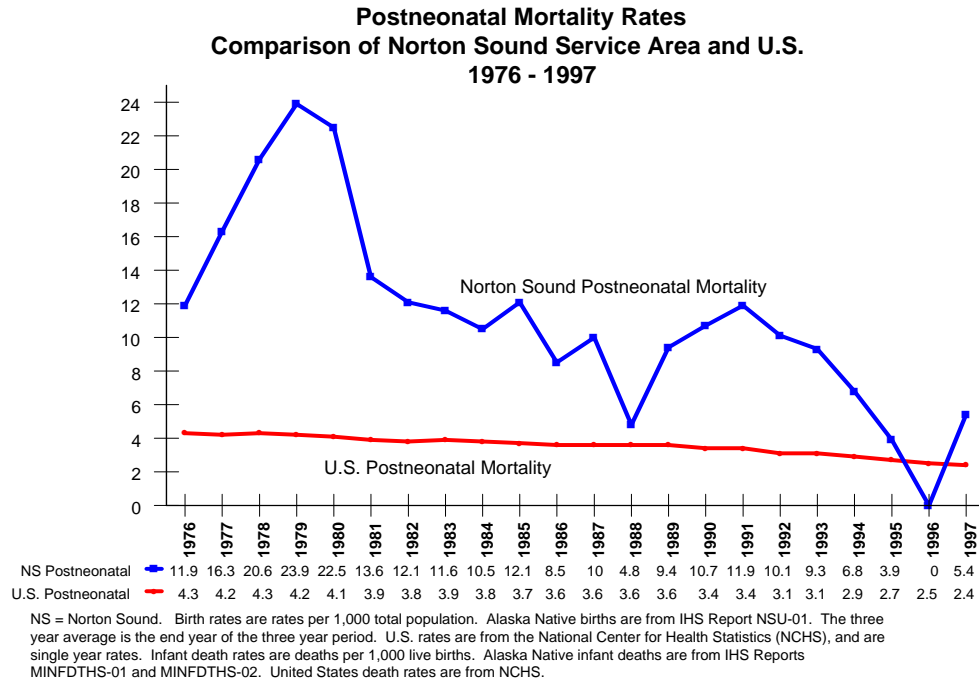
**Neonatal Mortality.** The following graph displays the Norton Sound Service Area and the U.S. neonatal death rates.



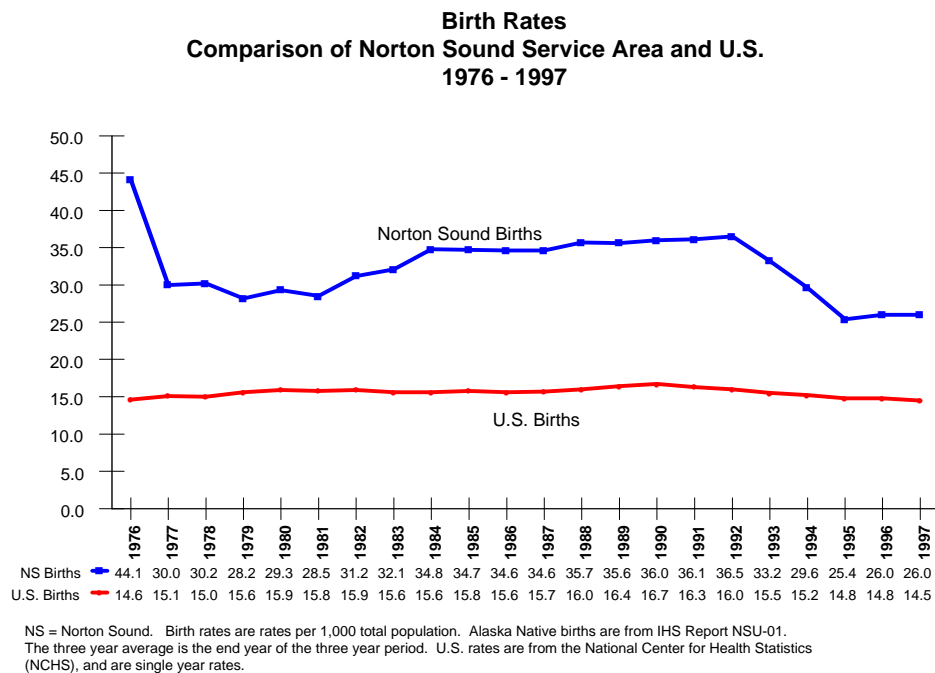


# Norton Sound Service Unit

**Postneonatal Mortality.** The postneonatal graph shows the Norton Sound Service Area and the U.S. postneonatal mortality rates.



**Birth Rates.** The birth rates for Norton Sound and the U.S. are in the following graph.

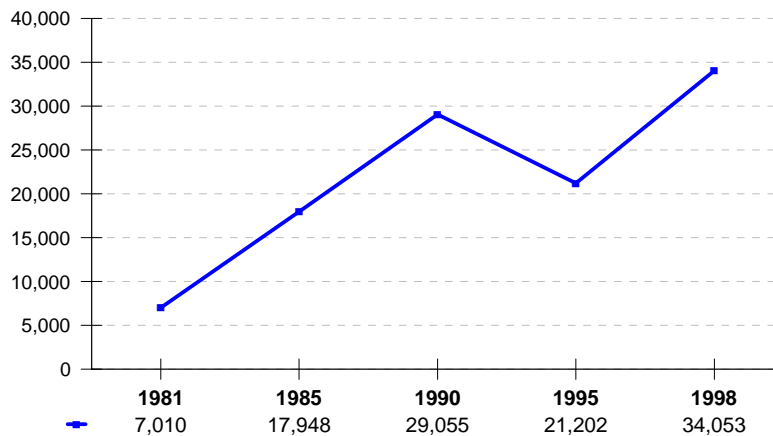


# Norton Sound Service Unit

## OUTPATIENT WORKLOAD/DIAGNOSES

The outpatient workload for the Norton Sound Regional Hospital is shown in the following graph.

**Norton Sound Regional Hospital  
Outpatient Workload: FY 1981 - FY 1998**



Source: Indian Health Service automated Outpatient Reporting System in Albuquerque, APC Report 1A for FY 1995, FY 1996 and FY 1997. Other years are from the Norton Sound Hospital local data system.

## **Norton Sound Service Unit: Leading Causes of Outpatient Visits: FY 1994**

	FY 1994
Accidents & Injuries	1,472
Hospital Medical/Surgical Follow-up	1,469
Otitis Media	1,169
Tests Only	1,153
Upper Respiratory Problems	1,143
Gynecologic Problems	624
Immunization	483
Bone & Joint Disorders	439
Physical Examinations	369

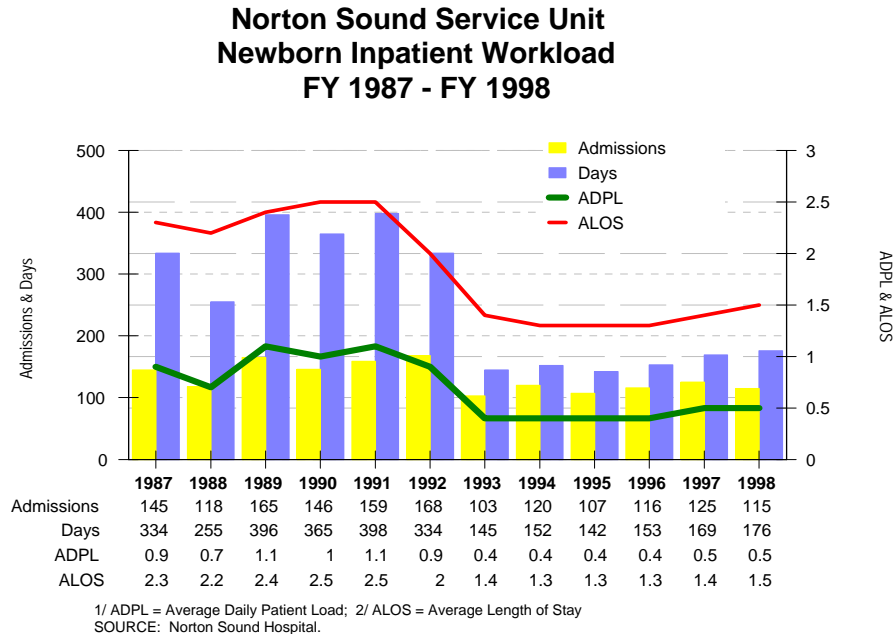
NOTE: Norton Sound diagnostic data was not available in FY 1995, 1996, and FY 1997.

Source: Indian Health Service Inpatient/Outpatient Reporting System in Albuquerque, APC Report 1C.

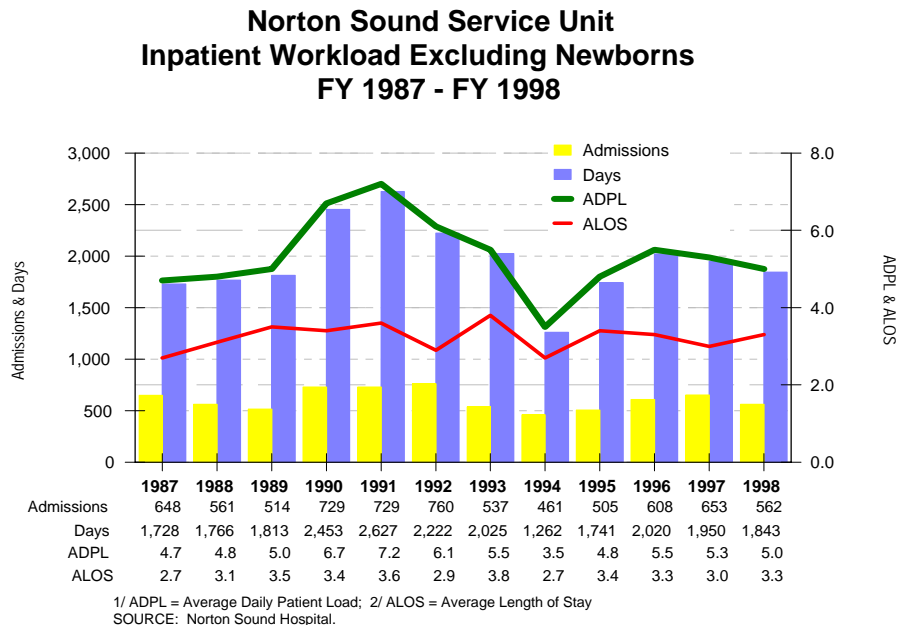
# Norton Sound Service Unit

## INPATIENT WORKLOAD

The newborn inpatient workload from 1987 to 1998 is shown in the graph below.



The inpatient workload excluding newborns is shown in the following graph.



# Norton Sound Service Unit

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## DISCHARGE DIAGNOSES

### Norton Sound Hospital - Leading Causes of Discharges: FY 1995 - FY 1997

	FY 1995	FY 1996	FY 1997
Deliveries (Childbirth)	107	119	112
Pneumonia	21	42	33
Psychoses	12	40	26
Bronchitis, Emphysema	9	34	25
Undiagnosed Symptoms	6	29	25
Heart Disease	11	29	21
Alcohol Abuse	5	33	16
Complications of Pregnancy	14	16	10
Neuroses & Personality Disorders	3	9	7
Cerebrovascular Disease	1	5	7

Source: Indian Health Service Inpatient/Outpatient Reporting System in Albuquerque, APC Report 2C.